



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

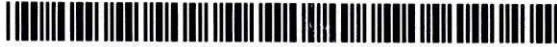
D119-796-241
Job Sheet 178858



Part No: D119-796-241

Job Qty: 1 ea

Part Name: Aft Crosstube Installation Without Step (No Hardware)



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/8/18

Job Tracking No:

Due Date: 6/22/18

Created By: Jesse White

Type: Stock

Description:

Note: D119-796-241 REV.J IPP REV:A 14.09.03 NEW ISSUE DD VERF:JLM IPP REV:B 14.10.15 AS PER REV.B
DD VERF:JLM IPP REV:C 14.11.19 AS PER REV.C DD VERF:JLM IPP REV:D 14.12.12 AS PER REV.pd1 DD
VERF:JLM IPP REV:E 15.02.11 AS PER REV F JLM VERIFIED BY:DD IPP REV:F 17.05.08 AS PER IIN
REV.F DD VERF:JFS

Ship Via:

Bill of Materials

TRN 5078261



Container No: S079535



Part: D119-796-241

Job No: 178858

Serial No/Batch: S079535

Revision: J

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/11/18

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	6/22/18	6/22/18	0.00	0.00	Start Up Crosstubes-1		GP 18-06-11
120	Packaging	1 pcs	6/22/18	6/22/18	0.00	0.00	Packaging1-1		GP 18-06-11
130	CNC Bend Crosstubes	1 pcs	6/22/18	6/22/18	4.67	4.17	CNC Bend Crosstube		GP 18-06-11
140	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC15		GP 18-06-18
145	Crosstubes	1 pcs	6/22/18	6/22/18	0.00	3.30	Crosstubes-1		GP 18-06-18
150	Crosstubes	1 pcs	6/22/18	6/22/18	0.00	3.30	Crosstubes-1		GP 18-06-18
160	HandFXtube	1 pcs	6/22/18	6/22/18	0.00	1.28	HandFinish5		GP 18-06-18
170	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC7-1		GP 18-06-19
175	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC5		GP 18-06-19
180	Outsource	1 pcs	6/22/18	6/22/18			SKY002-VC P10.040321		CZ 18-07-19
190	Packaging	1 pcs	6/22/18	6/22/18	0.00	0.00	Packaging2		JUL 19 2018
200	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC5		38
230	SprayPaint	1 pcs	6/22/18	6/22/18	0.00	1.31	Spray Paint		9-89 18-08-09
240	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC14		38
242	Crosstubes	1 pcs	6/22/18	6/22/18	0.00	3.30	Crosstubes-1		AS AUG 2 1 2018
244	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC5		AS
246	SprayPaint	1 pcs	6/22/18	6/22/18	0.00	1.31	Spray Paint		AS AUG 2 2 2018
248	SprayPaint	1 pcs	6/22/18	6/22/18	0.00	1.31	Spray Paint		AS AUG 2 2 2018
250	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC14		AS
252	Crosstubes	1 pcs	6/22/18	6/22/18	0.00	3.30	Crosstubes-1		AS AUG 2 2 2018
260	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC5		AS
270	Packaging	1 pcs	6/22/18	6/22/18	0.00	0.00	Packaging1-1		AS AUG 2 2 2018
280	QC	1 pcs	6/22/18	6/22/18	0.00	0.00	QC4		AS 18-08-22
290	Packaging	1 pcs	6/22/18	6/22/18	0.00	0.00	Packaging3-1 LG050		AS AUG 2 2 2018
295	DC	1 pcs	6/22/18	6/22/18	0.00	0.00	DC		N/R
300	QC21-FG	1 Ea	6/22/18	6/22/18	0.00	0.00	QC21		21 AUG 2 3 2018

Part Op 130 - Bend tube as per Dwg D119-796-241 using CNC bender program

Descriptions: 145 - 1- CUT TUBE AT HEIGHT ON FAI SHEET

150 - ***** ENSURE PROPER JIG POSITIONING *****

160 - ***IMMEDIATELY AFTER GRINDING***

180 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

190 - Ensure copy of NDT results attached to work order.

200 - *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Inspect for damage & ensure results are as per Dwg D119-796-241

230 - ***VERIFY BY 138847 Primer BATCH # TO MATCH W/O _____

240 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____

242 - Assemble as per dwg D119-796-241 and QSI 2- Install D5152-043 with proseal 890 on concave surface, 0.100" MIN thick as per dwg using DT10112 (identified right and left) 3- Install center support without bonbing. 4- Install Damper support and contact pads using proseal 890 per dwg and clamp in position. 138848 exp 11/18

244 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____

246 - ***VERIFY BY _____ BATCH # TO MATCH W/O Primer 138847 Clear 138819

248 - ***VERIFY BY _____ BATCH # TO MATCH W/O Paint 138911

250 - ***VERIFY BY _____ BATCH # TO MATCH W/O _____

252 - 1- Re-install non fixed hardware per dwg ***Torque clamps on damper and contact pad to 80-100 IN-LBS.*** 2- Apply a filet-seal of proseal 890 around damper supports and contact pads.

260 - ***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED AS PER DWG.*** 1- ATTACH A RED TAG TO CENTER SUPPORT THAT READS CENTER SUPPORT NOT FIXED THEN DATE AND STAMP IT.

290 - Identify and pack for shipping as per PPP D119-796-241

295 - Photocopy bluefile and create labels as per PPP D119-796-241 chg 005

on w/o 176940

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D119-796-241TRN	Crosstube Turning Detail	1 Ea (1 ea)	90-Start up Operation	
CR3212-4-07	Cherry Rivet	16 Ea (16 ea)	242-Crosstubes	
D2873-043	Nut Plate Assembly	4 Ea (4 ea)	242-Crosstubes	
D5122-1	Center Support, Upper	1 Ea (1 ea)	252-Crosstubes	
D5123-1	Clamp Cushion	6 Ea (6 ea)	252-Crosstubes	
D5123-5	Clamp Cushion	2 Ea (2 ea)	252-Crosstubes	
D5134-041	Damper Support Assembly, LH	1 Ea (1 ea)	252-Crosstubes	
D5134-042	Damper Support Assembly, RH	1 Ea (1 ea)	252-Crosstubes	
D5136-1	Contact Pad, LH	1 Ea (1 ea)	252-Crosstubes	
D5136-2	Contact Pad, RH	1 Ea (1 ea)	252-Crosstubes	
D5152-043	Aft Post Mount Assembly	2 Ea (2 ea)	252-Crosstubes	
MS21920-25	Clamp	6 Ea (6 ea)	252-Crosstubes	
MS21920-28	Clamp	2 Ea (2 ea)	252-Crosstubes	
D5515-1	Grounding Clamp	2 Ea (2 ea)	252-Crosstubes	
MS21042L3	Nut	2 Ea (2 ea)	252-Crosstubes	
MS27039-1-08	Screw	2 Ea (2 ea)	252-Crosstubes	
NAS1149D0332J	Washer	4 Ea (4 ea)	252-Crosstubes	
AN174-3A	Bolt	2 Ea (2 ea)	270-Packaging	
MS21042L4	Nut	2 Ea (2 ea)	270-Packaging	
NAS1149D0432J	Washer	4 Ea (4 ea)	270-Packaging	

Job Allocations

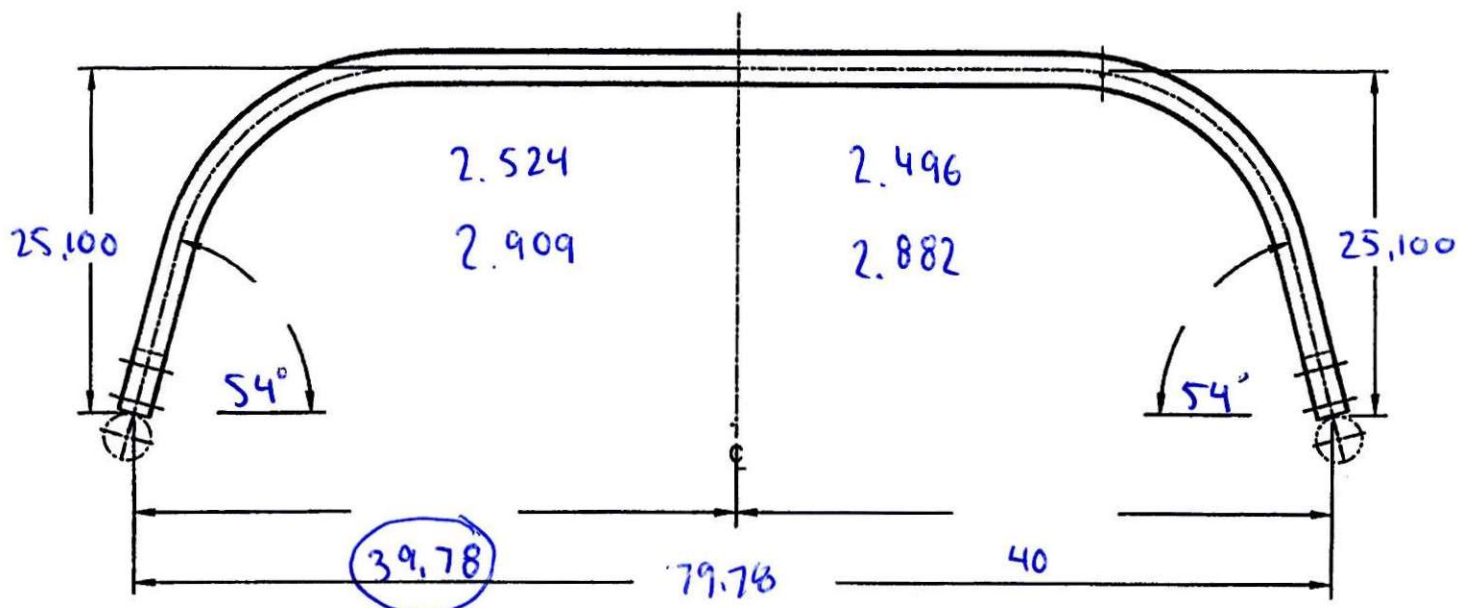
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D119-796-241TRN	1	6	0
242-Crosstubes	CR3212-4-07 M138621-12	16	324	0
	D2873-043 5089003	4	19	0
252-Crosstubes	D5122-1 5090238	1	3	0
	D5123-1 F160081	6	223	0
	D5123-5 163263	2	204	0
	D5134-041 5079482	1	2	0
	D5134-042 5079364	1	0	0
	D5136-1 5082473	1	12	0
	D5136-2 5063066	1	12	0
	D5152-043 5083847	2	10	0
	D5515-1 5070085	2	30	0
	MS21042L3 5087340	2	1,902	0
	MS21920-25 5071411	6	140	0
	MS21920-28 5060057	2	48	0
	MS27039-1-08 5020602	2	386	0
	NAS1149D0332J 5035396	4	1,829	0
270-Packaging	AN174-3A 5002776	2	50	0
	MS21042L4 5089365	2	2,965	0
	NAS1149D0432J 5093756	4	214	0

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Crosstube Assembly (AW119 MKII Aft)	5.880Inches ± 0.030	5.910 5.850		
2	Crosstube Assembly (AW119 MKII Aft)	2.516Inches $+ 0.005$ $- 0.000$	2.521 2.516		
3	Crosstube Assembly (AW119 MKII Aft)	2.626Inches $+ 0.005$ $- 0.000$	2.631 2.626		
4	Crosstube Assembly (AW119 MKII Aft)	2.627Inches $+ 0.005$ $- 0.000$	2.632 2.627		
5	Crosstube Assembly (AW119 MKII Aft)	2.798Inches $+ 0.005$ $- 0.000$	2.803 2.798		
6	Crosstube Assembly (AW119 MKII Aft)	2.799Inches $+ 0.005$ $- 0.000$	2.804 2.799		
7	Crosstube Assembly (AW119 MKII Aft)	2.989Inches $+ 0.005$ $- 0.000$	2.994 2.989		
8	Crosstube Assembly (AW119 MKII Aft)	3.191Inches $+ 0.005$ $- 0.000$	3.196 3.191		
9	Crosstube Assembly (AW119 MKII Aft)	3.200Inches $+ 0.005$ $- 0.000$	3.205 3.200		
10	Crosstube Assembly (AW119 MKII Aft)	5.880Inches ± 0.030	5.910 5.850		
11	Crosstube Assembly (AW119 MKII Aft)	2.516Inches $+ 0.005$ $- 0.000$	2.521 2.516		
12	Crosstube Assembly (AW119 MKII Aft)	2.626Inches $+ 0.005$ $- 0.000$	2.631 2.626		
13	Crosstube Assembly (AW119 MKII Aft)	2.627Inches $+ 0.005$ $- 0.000$	2.632 2.627		
14	Crosstube Assembly (AW119 MKII Aft)	2.798Inches $+ 0.005$ $- 0.000$	2.803 2.798		
15	Crosstube Assembly (AW119 MKII Aft)	2.799Inches $+ 0.005$ $- 0.000$	2.804 2.799		
16	Crosstube Assembly (AW119 MKII Aft)	2.989Inches $+ 0.005$ $- 0.000$	2.994 2.989		
17	Crosstube Assembly (AW119 MKII Aft)	3.191Inches $+ 0.005$ $- 0.000$	3.196 3.191		
18	Crosstube Assembly (AW119 MKII Aft)	3.200Inches $+ 0.005$ $- 0.000$	3.205 3.200		
19	Crosstube Assembly (AW119 MKII Aft)	105.710Inches ± 0.020	105.730 105.690		

Plex 6/8/18 10:59 AM dart.white.jesse

DART AEROSPACE LTD		Work Order:	
Description: Crosstube Aft, with Step		Part Number:	D119-796-241
Inspection Dwg: D119-796-241 Rev: J		Page 1 of 1	

Required Dimension	Min	Max
Height	24.840	25.100
1/2 Span	39.810	40.070
Angle	54°	57°
Total Span	79.620	80.140
Bending Passes	8	--
Crushing	--	8.5%



	Side A	Side B
Bending Passes	12	12
Crushing	7.1%	7.2%
Comments		

QC15 Inspection	
Date	

Rev	Date	Change	Revised by	Approved
A	15.04.14	New Issue	KJ	
B	15.11.12	Min angle revised	KJ	
C	15.12.15	Dwg Rev updated	KJ	
D	17.07.12	Dwg Rev updated	KJ	

D119-796-241 XTUBE ASSY (AW119 MKII AFT)

NOTES:

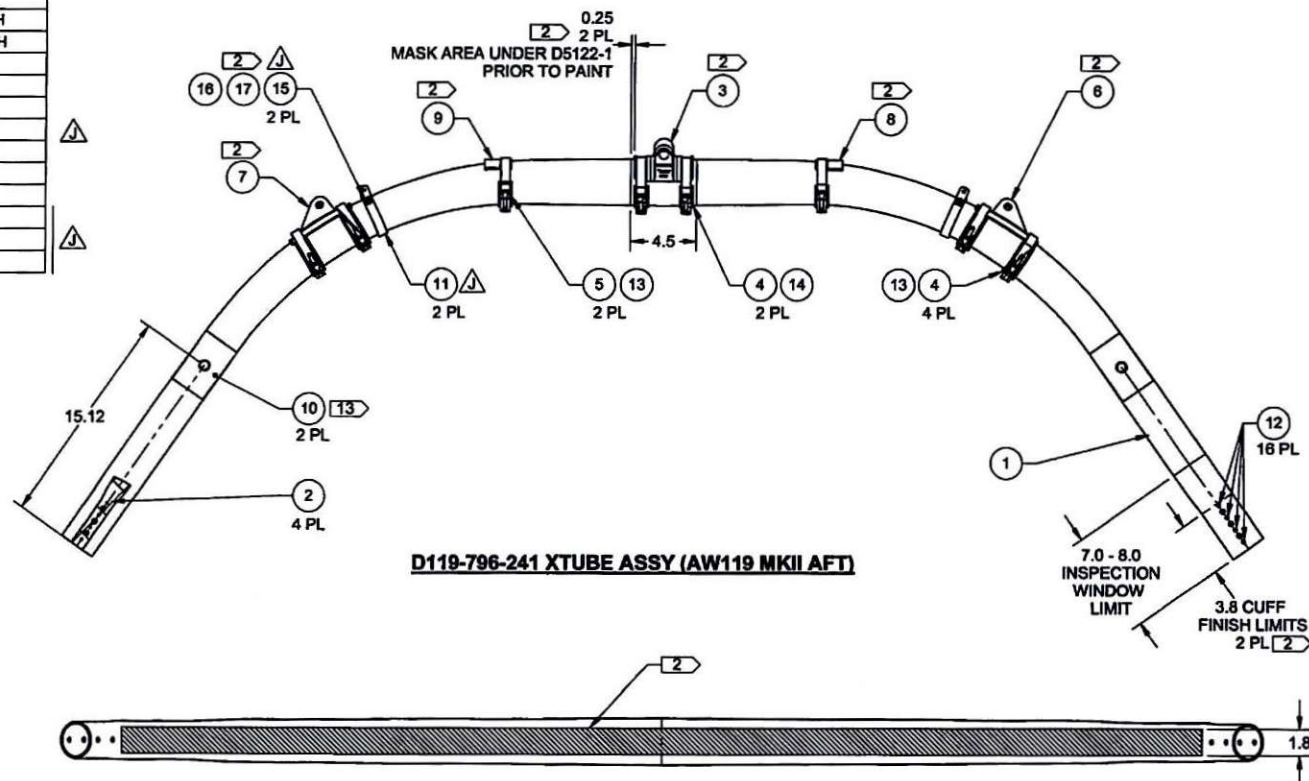
- 1) MATERIAL: N/A
- 2) FINISH: MASK D5134-041/-042 DAMPER SUPPORT ASSEMBLIES, CUFFS, D5136-1/-2 CONTACT PADS, THE COMPLETE CIRCUMFERENCE OF THE TUBE UNDER THE D5122-1 CENTER SUPPORT AND THE TAB ON THE D5515-1 GROUNDING CLAMP PRIOR TO APPLICATION OF CLEAR COAT/PAINT.
IF NECESSARY TOUCH UP PRIMER ON OUTSIDE OF CROSSTUBE PER DART QSI 005 4.2.
APPLY MATTE CLEAR COAT TO THE UNDERSIDE OF CROSSTUBE AS SHOWN (B4-2, HATCHED AREA) PER QSI 005 4.2.
MASK THE UNDERSIDE OF CROSSTUBE AS SHOWN (B4-2, HATCHED AREA).
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY USING PART NUMBER 'D119-796-241' AND BATCH NUMBER ON INSIDE OF CUFF PER QSI 044 6.4
- 7) WEIGHT: 28.26 lbs
- 8) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM DEFECTS SUCH AS SCRATCHES, NICKS OR DENTS. DEFECTS UP TO 0.005 MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 9) INSTALL D5122-1 CENTER SUPPORT HAND TIGHT ONLY. DO NOT TORQUE. INSTALL RED TAG TO INDICATE 'D5122-1 CENTER SUPPORT MUST BE BONDED PER IIN-D119-796 PRIOR TO FLIGHT'.
- 10) PRIOR TO FINISHING, ABRASE MATING SURFACES OF D5136-1/-2 AND SURFACE OF CROSSTUBE WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH 'N' WIPE DEGREASER. APPLY A 0.100" MIN THK LAYER OF PROSEAL 890 ON THE INSIDE CONCAVE SURFACE OF THE D5136-1/-2 CONTACT PADS AND INSTALL AT AN 8.4" OFFSET FROM THE CROSSTUBE BENDING PLANE. INSTALL MS21920-25 CLAMPS AND D5123-5 CLAMP CUSHIONS WHILE WET. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.
- 11) TORQUE MS21920 CLAMPS 80 - 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY, THE NUT HAS NOT BOTTOMED-OUT AFTER TORQUING AND THE NUT IS FACING AFT.
- 12) PRIOR TO FINISHING, POSITION AND INSTALL D5134-041/-042 DAMPER SUPPORTS USING JIG DT10085. ABRASE MATING SURFACES OF THE D5134-041/-042 DAMPER SUPPORTS AND CROSSTUBE WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH 'N' WIPE DEGREASER. APPLY A 0.100" MIN THK LAYER OF PROSEAL 890 ON THE INSIDE CONCAVE SURFACE OF THE D5134-041/-042. INSTALL MS21920-25 CLAMPS AND D5123-1 CLAMP CUSHIONS WHILE WET. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS. ENSURE THAT THE MS21920 CLAMPS ARE POSITIONED AS SHOWN IN DETAIL C.
- 13) PRIOR TO FINISHING, ABRASE MATING SURFACES OF CROSSTUBE AND D5152-043 WITH SCOTCH BRITE 7447 RED AND REMOVE RESIDUE WITH DUPONT 4105S WASH 'N' WIPE DEGREASER. INSTALL D5152-043 WITH LAYER OF PROSEAL 890 ON INSIDE CONCAVE SURFACE, 0.100" MIN THK LOCATE D5152-043 USING TOOL DT10112.
- 14) INSTALL THE D5515-1 GROUNDING CLAMP AND ASSOCIATED HARDWARE PER DETAIL "C" PRIOR TO FINISHING. TORQUE THE MS21042-3 NUT 12-15 IN-LB. COMPLETELY SEAL THE CLAMP USING PROSEAL 890.
- 15) CARRY OUT A RESISTANCE CHECK BETWEEN THE D5515-1 GROUNDING CLAMP AND ANY UNPAINTED SECTION OF THE CROSSTUBE IN ACCORDANCE WITH AC43-13-1B CHAPTER 11. MAXIMUM RESISTANCE IS 3 MEGOHMS.

RELEASED
2017-05-04
ECN 17-538

J	ADD NOTE 14 & 15 ON SHT 1, ADD PAINT/PRIMER MASKING LOCATIONS, REVISE NOTES ON SHT 1 & 4, REVISE BOM ON SHT 2 TO ADD GROUNDING CLAMP AND ASSOCIATED HARDWARE. REF PAR 17-580	ML	17.02.10
I	D6023-106 MATERIAL REPLACES D6009-106. D5136-1/-2 & D5134-041/-042 NOW INSTALLED ON PRIMER.	AP	15.10.13
H	NOTE 9 RE-WRITTEN. BONDING INSTRUCTIONS MOVED TO IIN. SEE PREVIOUS REV FOR DETAILS.	AP	15.07.02
G	FINISHING ORDER ADJUSTED, UPDATE BEND TOLERANCE AND TRN DETAIL TOLERANCE TO MATCH D119-796-141 DWG	AP	15.04.24
F	REMOVED PRIMER/PAINT ON CUFFS, 2.516 WAS 2.500 (C8-5)	AP	15.02.03
E	D5152-043 WAS D5150-3, SCOTCH BRITE 7447 RED WAS 180 GRIT SANDPAPER	DB	15.01.15
D	ADD D5150-3 STEP POST (2X). MOVED INSPECTION WINDOW DETAIL TO SHT 1, MODIFIED NOTES ON SH 1&3	DB	14.11.25
C	CR3212-4-07 RIVETS WAS CR3212-4-05 RIVETS, RADIUS BLOCK WAS NUT PLATE ASSEMBLY (BOM). REMOVED 7.5 DEG CUFF HOLE OFFSET (A1-3), REDUCED CUFF DIA TO 2.500 (C8-5), ADD INSPECTION WINDOW	AP	14.10.23
B	ORIENTATION OF D5122-1 CENTER SUPPORT WAS CORRECTED. D5123-5 ADDED UNDER D5136-1/-2 CONTACT PADS. ADDED D2873-043 NUT PLATE ASSY & CR3212-4-05 RIVETS. ADDED REFERENCE TO SKOTUBES FOR LOCATING CUFF HOLES. RE-ORGANIZED NOTES, REMOVED REDUNDANT INFORMATION.	AP	14.09.08
A	NEW ISSUE	AP	14.08.07
REV.	DESCRIPTION	BY	DATE
DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	JMH	DRAWING NO.	REV. J
MFG. APPR.	DP	D119-796-241	SHEET 1 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII AFT)	NTS
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APPROVED

ITEM	QTY	P/N	DESCRIPTION
	X	D119-796-241	XTUBE ASSY (AW119 MKII AFT)
1	1	D119-796-241BND	CROSSTUBE, AFT
2	4	D2873-043	RADIUS BLOCK
3	1	D5122-1	CENTER SUPPORT
4	6	D5123-1	CLAMP CUSHION
5	2	D5123-5	CLAMP CUSHION
6	1	D5134-041	DAMPER SUPPORT ASSY, LH
7	1	D5134-042	DAMPER SUPPORT ASSY, RH
8	1	D5136-1	CONTACT PAD, LH
9	1	D5136-2	CONTACT PAD, RH
10	2	D5152-043	AFT POST MOUNT ASSY
11	2	D5515-1	GROUNDING CLAMP
12	16	CR3212-4-07	CSK RIVET, CHERRY MAX
13	6	MS21920-25	CLAMP
14	2	MS21920-28	CLAMP
15	2	MS27039-1-08	SCREW, PAN-HEAD
16	2	MS21042-3	NUT
17	4	NAS1149D0332J	WASHER



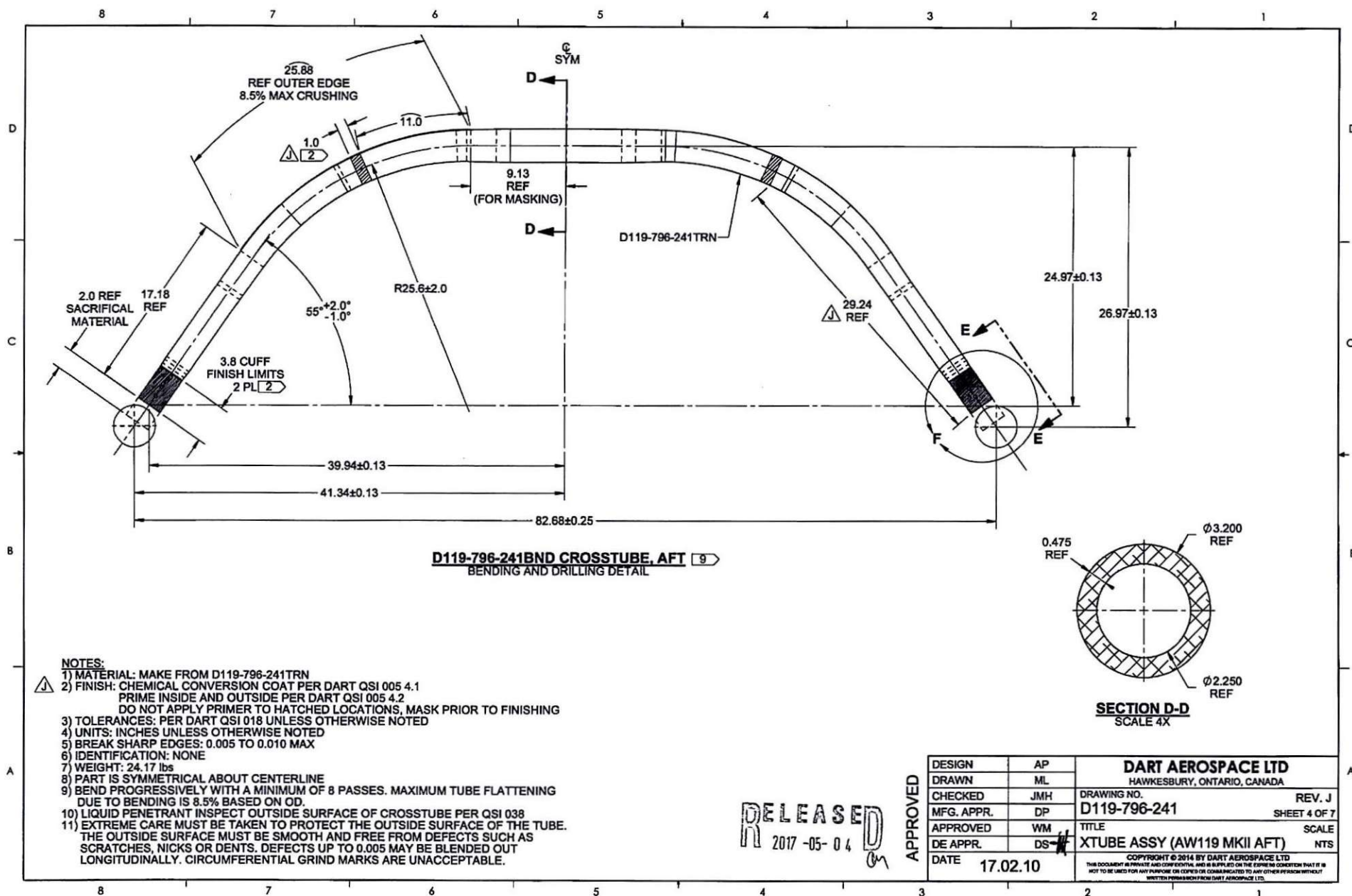
D119-796-241 XTUBE ASSY (AW119 MKII AFT)

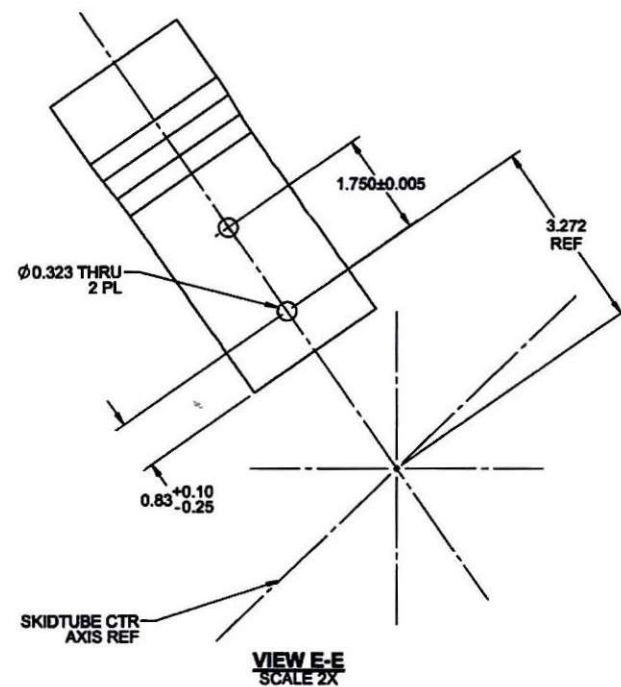
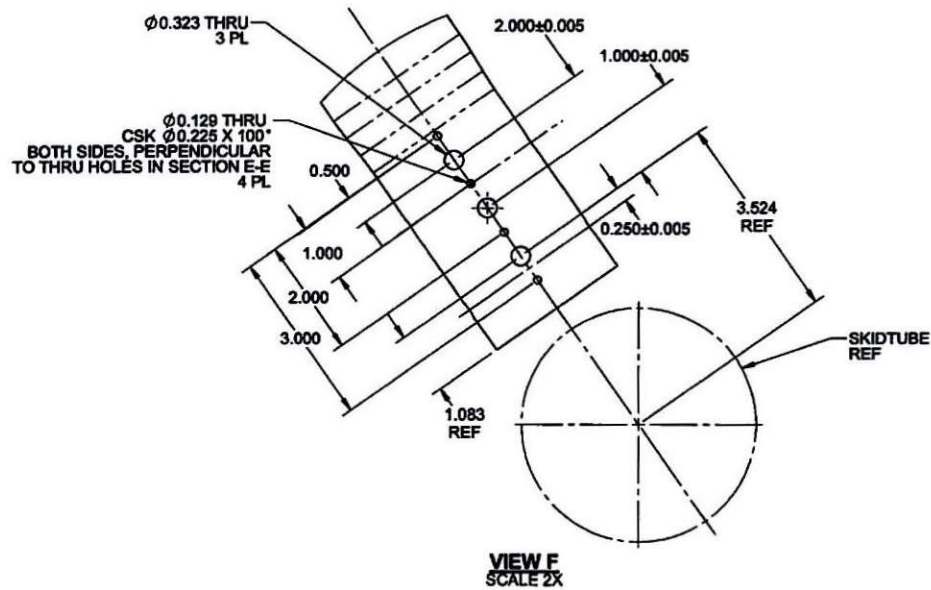
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2017-05-04

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DESIGN	AP
DRAWN	ML
CHECKED	JMH
MFG. APPR.	DP
APPROVED	WM
DE APPR.	DS
DATE	17.02.10

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	REV. J
D119-796-241	SHEET 2 OF 7
TITLE	SCALE
XTUBE ASSY (AW119 MKII AFT)	NTS
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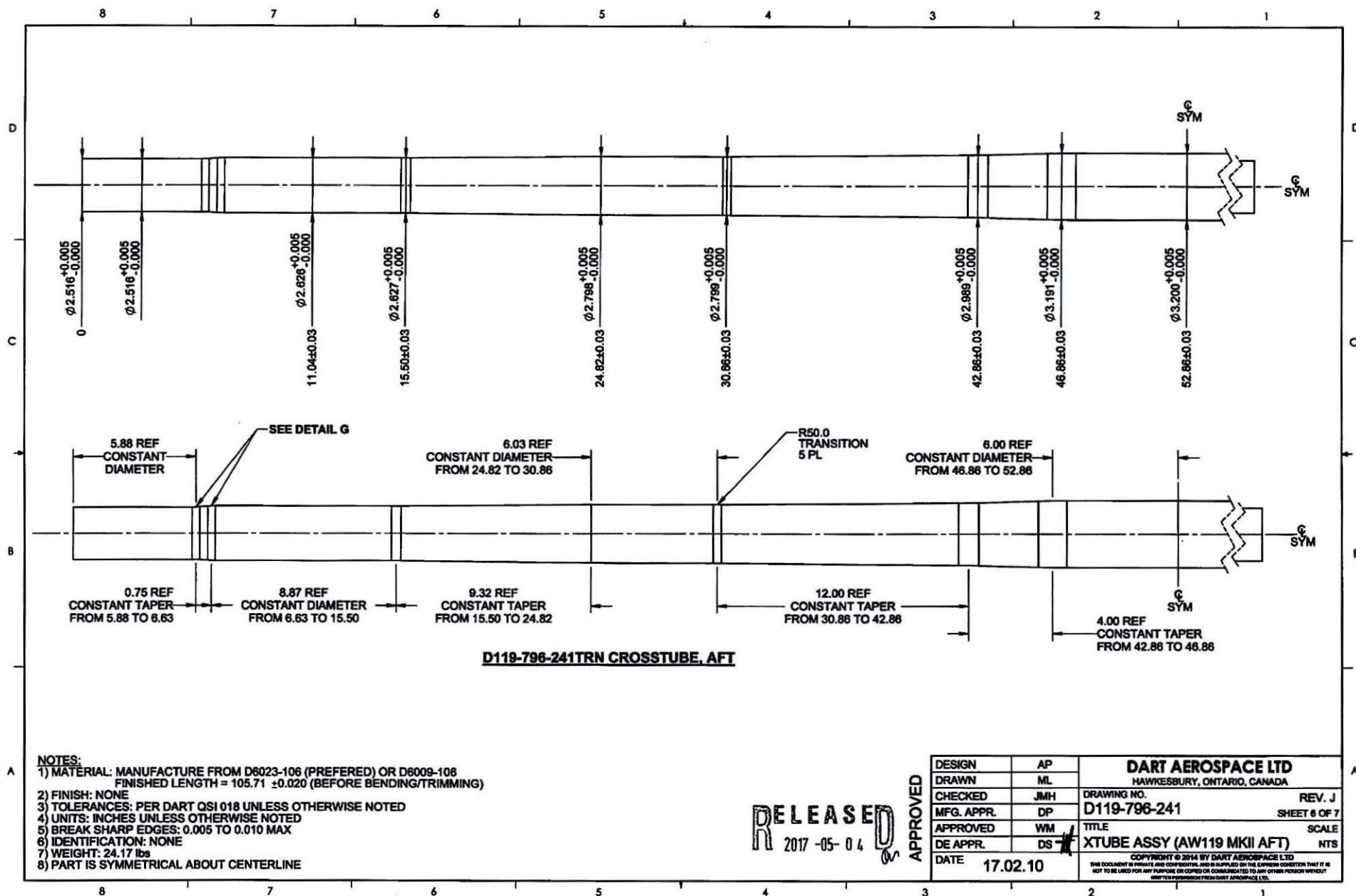


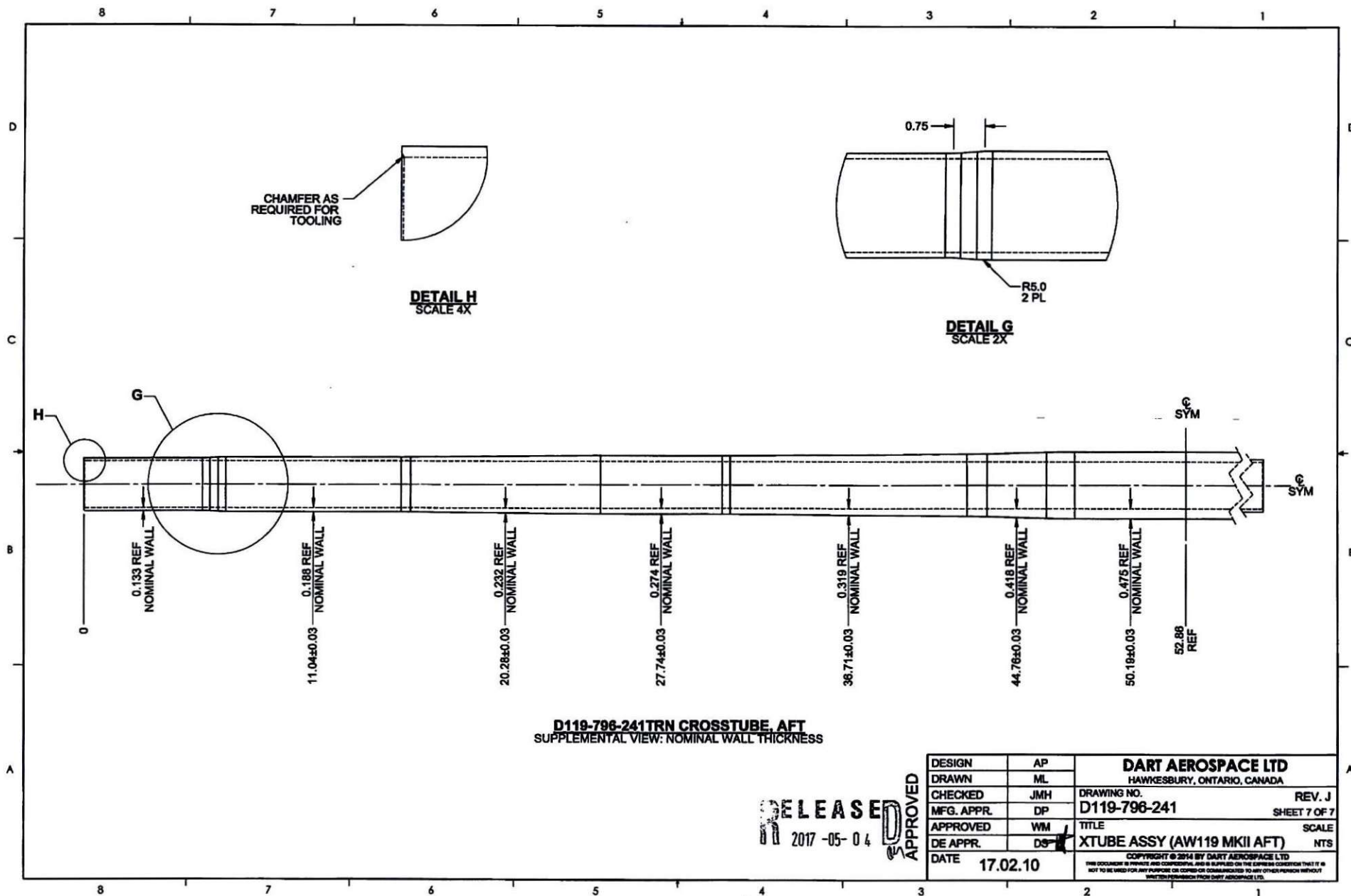


RELEASED
2017-05-04

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DESIGN	AP	DART AEROSPACE USA, INC.	
DRAWN	ML	KENT, WA	
CHECKED	JMH	DRAWING NO.	REV. J
MFG. APPR.	DP	D119-796-241	SHEET 5 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII AFT)	NTS
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RELEASED
2017-05-04

APPROVED

DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	JMH	DRAWING NO.	REV. J
MFG. APPR.	DP	D119-796-241	SHEET 7 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	XTUBE ASSY (AW119 MKII AFT)	NTS
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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

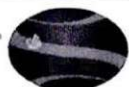
Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☒ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier Quality ☐
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Date : 18/6/18 Sequence #: 130 QTY Affected : 1 MRB (QSI042) INSP 12

Description Work Order Deviation	Disposition	Completed By
One width under tolerance by 0.030.	Acceptable. Total span in tolerance. No fit issue	<u>P 18/6/18</u> Lead hand / Supervisor <u>JW 18-06-18</u> QC / QA Coordinator <u>PD 13-06-18</u>

Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☒ Product Improvement ☐ Process Improvement ☐ Human Factors ☐	FAULT CATEGORY <table> <tr> <td>☐ Pressure/Forced</td> <td>☐ Contamination</td> <td>☐ Power Loss/Surge</td> <td>☐ Positioned Wrong</td> </tr> <tr> <td>☐ Bending</td> <td>☐ Misaligned/off center</td> <td>☐ Folio/Program</td> <td>☒ Outside Tolerance</td> </tr> <tr> <td>☐ Crushing</td> <td>☐ BOM/Route</td> <td>☐ Grain Direction</td> <td>☐ Drawing</td> </tr> <tr> <td>☐ Cracks</td> <td>☐ Broken/Damage/Defect</td> <td>☐ Weld</td> <td>☐ Finish</td> </tr> <tr> <td>☐ Crimp/Kink/Ripple/Wave/Twist</td> <td>☐ Incomplete/Unclear Instructions</td> <td>☐ Wrong Stock Pulled</td> <td>☐ Part Lost/Missing</td> </tr> <tr> <td>☐ Marks/Chatter</td> <td>☐ Drill Holes</td> <td>☐ Out of Sequence</td> <td>☐ Misread</td> </tr> <tr> <td>☐ Mislabeled</td> <td>☐ Fit/Function</td> <td>☐ Off-set/Set-up</td> <td></td> </tr> </table>	☐ Pressure/Forced	☐ Contamination	☐ Power Loss/Surge	☐ Positioned Wrong	☐ Bending	☐ Misaligned/off center	☐ Folio/Program	☒ Outside Tolerance	☐ Crushing	☐ BOM/Route	☐ Grain Direction	☐ Drawing	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Finish	☐ Crimp/Kink/Ripple/Wave/Twist	☐ Incomplete/Unclear Instructions	☐ Wrong Stock Pulled	☐ Part Lost/Missing	☐ Marks/Chatter	☐ Drill Holes	☐ Out of Sequence	☐ Misread	☐ Mislabeled	☐ Fit/Function	☐ Off-set/Set-up	
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Other/Details: _____																													

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO36735	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO040521
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT (LIQUID PENETRANT CRACK TEST) ON THE FOLLOWING FOUR (7) CROSSTUBES:

P/N: D119-796-241 Aft CROSSTUBE

✓ 1- JOB SHEET# 178858

P/N: D350-748-103 STAINLESS STEEL FWD CROSSTUBE

2- JOB SHEET# 157386

3- JOB SHEET# 173649

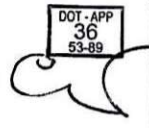
4- JOB SHEET# 173650

P/N: D350-748-203 STAINLESS STEEL AFT CROSSTUBE

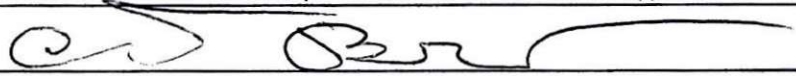
5- JOB SHEET# 173652

6- JOB SHEET# 173653

7- JOB SHEET# 178950

Action Taken:	Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-7) AS PER ASTM1417M-16		
NO CRACK FOUND	JUL 18 2018	
PEN (ZL-56, MPO13600), DEV. (SKD-S2, MPO11715), CLEANER (SKC-S, MPO19368)		
Description	Location	P/N
Qty	Batch	S/N Off
S/N On		

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
		JUL 18 2018
Name:		

CHRISTIAN BRIEN